Toidutöötlemismasinad. Suitsutamisseadmete paigaldis. Ohutus- ja hügieeninõuded

Food processing machinery - Smokehouses - Safety and hygiene requirements

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 15861:2012 sisaldab Euroopa standardi EN 15861:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 15861:2012 consists of the English text of the European standard EN 15861:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.06.2012.	Date of Availability of the European standard is 27.06.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Nahrungsmittelmaschinen - Räucheranlagen - Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 10 May 2012.

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Foreword

This document (EN 15861:2012) has been prepared by Technical Committee CEN/TC 153 “Machinery intended for use with foodstuffs and feed”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

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For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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Introduction

This document is a type C standard as stated in EN ISO 12100:2010.

This European Standard is concerned with types of machinery referred to as “smokehouses”. The extent to which hazards, hazardous situations and events are covered is indicated in the scope of this document.

When provisions of this type C standard differ from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards.

1 Scope

1.1 Requirements

This European Standard specifies safety and hygiene requirements for the design and manufacture of smokehouses for commercial use.

The machines covered by this standard are used for the smoking of foodstuffs, especially meat, fish or similar products, as well as the connected heating and cooling processes.

Smokehouses consist of the following elements:

— Smoke chamber with equipment;

— Air handling system;

— Smoke generator;

— Pipes and ducts;

— Cleaning systems.

This European Standard deals with all significant hazards, hazardous situations and events and hygiene requirements relevant to smokehouses when they are used as intended and under reasonably foreseeable conditions of misuse.

This European Standard deals with the hazards which can arise during the whole life of smokehouses.

This document is not applicable to smokehouses which are manufactured before the date of publication of this document by CEN.

1.2 Types

This European Standard covers the following types of smokehouses and installations:

— Smokehouses with friction smoke generator;

— Smokehouses with steam smoke generator;

— Smokehouses with liquid smoke generator;

— Smokehouses with saw dust and wood chip smoke generators;

— Smokehouses with one or several smoke chambers for batch production;

— Smokehouses for continous production.

This European Standard does not cover automatic production.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 349:1993+A1:2008, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 614-1:2006+A1:2009, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 953:1997+A1:2009, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

EN 1005-1:2001+A1:2008, *Safety of machinery — Human physical performance — Part 1: Terms and definitions*

EN 1005-3:2002+A1:2008, *Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation*

EN 1088:1995+A2:2008, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

EN 1672-2:2005+A1:2009, *Food processing machinery — Basic concepts — Part 2: Hygiene requirements*

EN 1839:2003, *Determination of explosion limits of gases and vapours*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 3744:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414:2010)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 11688-1:2009, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13732-1:2008, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)*

EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

3 Terms and Definitions

For the purpose of this document the terms and definitions given in EN ISO 12100:2010 and the following apply.

3.1
smoke generator
machinery part of a smokehouse, for generating the smoke

3.2
smouldering air
amount of air which will be fed to the smouldering place

3.3
smouldering place
place of smouldering in the smoke generator

3.4
smoke generation
production of fresh smoke from smoke materials

3.5
smoke chamber/processing room
part of the smokehouse, in which the product to be smoked is placed, and smoke will be applied

3.6
smoke
mixture from air and gaseous, vaporous, liquid and solid products of decomposition, developing from the pyrolysis of smoke materials

3.7
cycled smoke generation
smoke generation that, during an unchanged smoke program (smoke processing time), is switched on and off in intervals

3.8
smokehouse with open system
smokehouse without recirculation of the smoke to and from the smoke generator

3.9
smokehouse with re-circulated system
smokehouses with re-circulated smoke that travels from the smoke generator to the smoke chamber and is then re-circulated via the smoke generator

Note 1 to entry: The re-circulated smoke will then be used either
- exclusively as a smouldering volume for generating fresh smoke; or
- only for transportation of the high concentrated smoke from the smouldering place, which means that the re-circulated smoke is not involved in the smoke generating process; or
- as partial volume (part of the smouldering volume) for the generation of smoke.